SENNHEISER

Cordless TV Listening System
Set 830 S-MKE

Instruction manual

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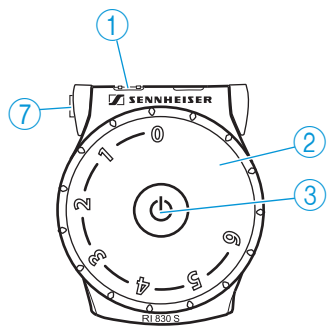

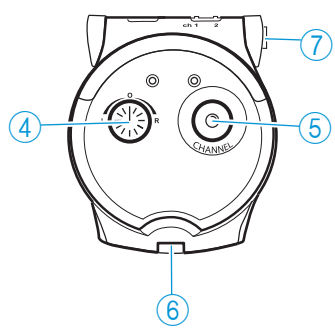

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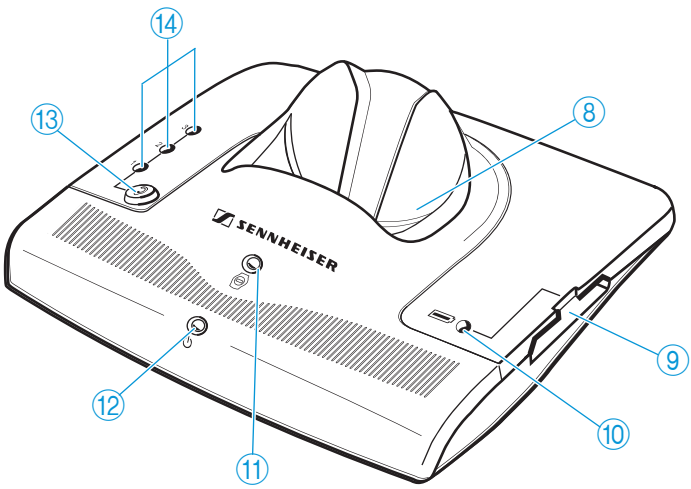
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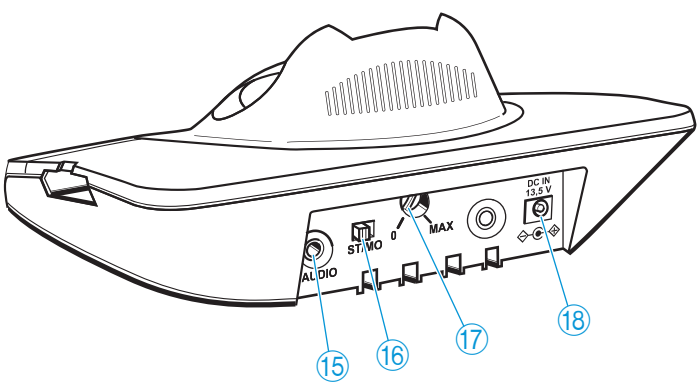
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Safety instructions

- Please read this instruction manual carefully and completely before using the devices.
- Make this instruction manual easily accessible to all users at all times. Always include this instruction manual when passing the devices on to third parties.
- Do not use the devices in situations which require special attention (e.g. when performing skilled jobs).
- Always keep the devices dry and do not expose them to extreme temperatures.
- Use the devices with care and set them up in a clean, dust-free environment.
- Varnish or furniture polish may degrade the feet of the transmitter, which could stain your furniture. You should therefore place the transmitter on a non-slip pad to avoid potential staining of furniture.
- Connected headphones contain magnets that generate a magnetic field which could cause dangerous interference with cardiac pacemakers and implanted defibrillators. Keep connected headphones at least 1.2'' (3 cm) from cardiac pacemakers or implanted defibrillators.
- This receiver allows you to set higher volumes than conventional headphones. This can cause hearing damage in persons with healthy hearing and especially in children.
- Refer all servicing to qualified service personnel. Servicing is required if the devices have been damaged in any way, liquid has been spilled, objects have fallen inside, the devices have been exposed to rain or moisture, do not operate properly or have been dropped.
- WARNING: To reduce the risk of fire or electric shock, do not expose the device and the mains unit to rain or moisture.
- Use only the supplied mains unit.
- Disconnect the mains connector from the wall socket
  - to completely disconnect the device from the mains,
  - during lightning storms or when unused for long periods of time.
- Ensure that the mains unit is
  - always readily operable and easily accessible,
  - properly plugged into the wall socket,
  - not covered or exposed to direct sunlight for longer periods of time in order to prevent heat accumulation,
  - only operated within the permissible temperature range (see ''Specifications'' on page 32),
  - not operated near heat sources.

Intended use

Intended use includes:

- having read this instruction manual, especially the chapter ''Safety instructions'',
- using the devices within the operating conditions and limitations described in this instruction manual.

''Improper use'' means using the devices other than as described in this instructions, or under operating conditions which differ from those described herein.

Safety instructions for the Lithium-Polymer rechargeable battery

The BA 300 is a Lithium-Polymer rechargeable battery. If abused or misused, this rechargeable battery may be damaged. Please understand that Sennheiser does not accept liability for damage arising from abuse or misuse.

WARNING!

In extreme cases, the rechargeable battery may even present a

- heat hazard
- fire hazard
- explosion hazard
- smoke and gas hazard

Do not heat above 70°C/158°F, e.g. do not expose to sunlight or throw into a fire.

Do not expose to moisture.

Do not short-circuit.

Do not mutilate or dismantle.

Store the devices/ rechargeable batteries in a cool and dry place at room temperature.

Only charge rechargeable batteries with the appropriate Sennheiser chargers.

When not using the rechargeable battery for extended periods of time, charge it regularly (every six months for about one hour).

Only charge rechargeable batteries at ambient temperatures between 10°C/50°F and 40°C/104°F.

Do not charge the rechargeable battery if the device is obviously defective.

Return defective devices or exhausted rechargeable batteries to your specialist dealer.

Delivery includes

Delivery of the Set 830 S-MKE system includes:

1 RI 830 S receiver
with BA 300 Lithium-Polymer rechargeable battery

1 TI 830 transmitter with integrated charging compart-ments

1 MKE 800 TV-N microphone

1 NT 13 mains unit with
3 country adapters (EU, UK, US)

1 connection cable
with two 3.5 mm stereo jack plugs
for connection to a headphone socket

3 audio adapters:

1 adapter 3.5 mm to ¼" (6.3 mm) jack plug

1 adapter for RCA socket

1 adapter for SCART socket

1 lanyard

1 clip for attaching the receiver

1 instruction manual

Product overview

The overview pictures of the receiver and the transmitter can be found on the inside front cover of this instruction manual.

I Receiver

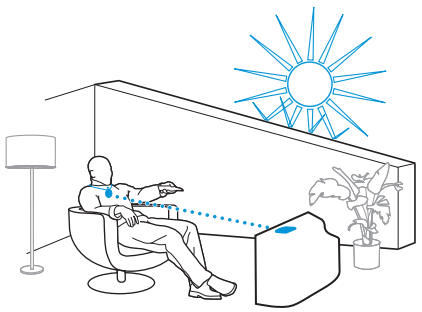
① Channel indicator
② Volume control
③ On/off button ⏻
④ Balance control
⑤ Channel search button
⑥ Battery compartment
⑦ Socket for headphones, induction loop or connection cable to hearing aid

II Transmitter

⑧ Charging compartment for receiver
⑨ Charging compartment for optional spare rechargeable battery
⑩ Charging indicator for optional spare rechargeable battery
⑪ Charging indicator for receiver's rechargeable battery
⑫ Operation indicator ⏻
⑬ "Speech intelligibility" button
⑭ Indicator for the selected speech intelligibility
⑮ Socket (marked blue) for connection of sound source or external microphone
⑯ Mono/stereo slide switch
⑰ Treble adjustment control
⑱ DC socket (marked yellow) for connection of mains unit

Putting the Set 830 S-MKE into operation

Setting up the transmitter



- Place the transmitter so that:
  - there are no obstacles in the light path between transmitter and receiver and
  - transmitter and receiver are not exposed to direct sunlight. Direct sunlight may interfere with the reception and may damage the transmitter.

If you are using a plasma TV screen:

Plasma TV screens radiate an infra-red signal that can adversely affect the transmission quality.

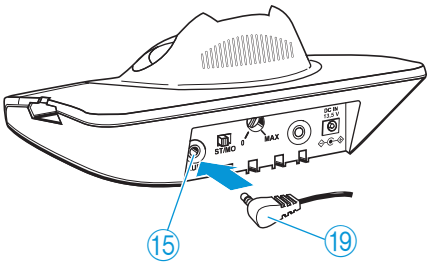
- Make sure that the transmitter is placed as far as possible from your plasma TV screen.
- If necessary, use a standard extension cable (3.5 mm stereo jack plug) to reduce the distance between transmitter and receiver. This extension cable is available from your Sennheiser dealer.

Note:

One transmitter can be used to transmit to several receivers on the same frequency.

Connecting the transmitter to a sound source

▶ Switch your sound source (e.g. TV) off before connecting the transmitter.



▶ Plug one end of the connection cable ⑲ into the blue socket ⑮ of the transmitter.

▶ Check the available connection possibilities of your sound source (e.g. TV).

Connection possibility	Name of connection possibility
A	Headphone socket
B L R	RCA socket
C	SCART socket
D	MKE 800 TV-N external microphone

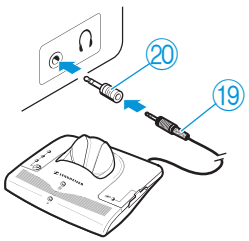
▶ Connect the transmitter as described in the corresponding chapter A, B, C or D.

Note:

– If there are several connections (A, B or C) available, select the SCART socket C.

– SCART adapter and microphone are also available as accessories (see page 30).

A Connecting the transmitter to a headphone socket



- ▶ Plug the other end of the connection cable ⑲ into the head-phone socket on your sound source.

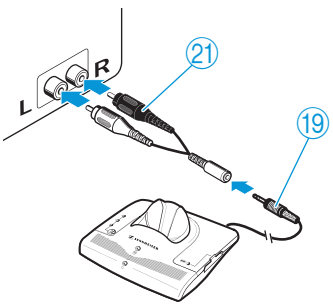
  Is the plug on the connection cable too small for the headphone socket?
- ▶ Plug the adapter to ¼" (6.3 mm) jack socket ⑳ onto the connection cable.

- ▶ Adjust the volume of the headphone socket on your sound source to a medium level.
  This improves the quality of cordless sound transmission.
  For detailed information, please refer to the instruction manual of your sound source (e.g. TV).

Note:

With most TVs, the headphone socket is located at the front or sides.

B Connecting the transmitter to an RCA socket

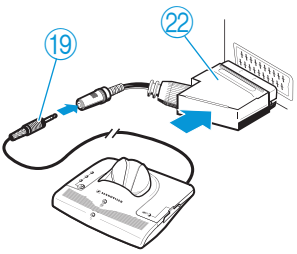


- ▶ Plug the adapter for RCA socket ㉑ onto the connection cable ⑲.
- ▶ Connect the red connector of the adapter ㉑ to the red RCA socket R of your sound source.
- ▶ Connect the white connector of the adapter ㉑ to the white or black RCA socket L of your sound source.

Notes:

– With most TVs, the RCA socket is located at the rear.
– If your TV has several RCA sockets, use the socket RCA output.

C Connecting the transmitter to a SCART socket



- Plug the SCART adapter (22) onto the connection cable (19).
- Connect the SCART adapter (22) to the SCART socket on your TV.

Note:

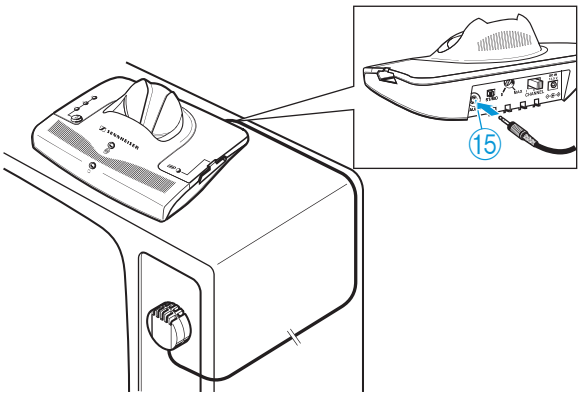
If your TV has several SCART sockets, use the socket SCART output.

D Using the MKE 800 TV-N external microphone

What if your sound source doesn't have any of the connections mentioned above?
You can then use the MKE 800 TV-N microphone.

What if your sound source mutes the external loudspeakers if you use one of the connections mentioned above?

- Via the operating menu of your TV, check if the muting can be deactivated.
- If the muting persists, use the MKE 800 TV-N microphone instead of the connection cable.



To connect the MKE 800 TV-N microphone:

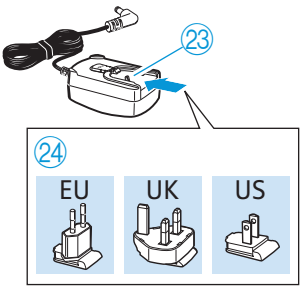
- If possible, adhere the supplied Velcro tape directly in front of the loudspeaker of your TV.

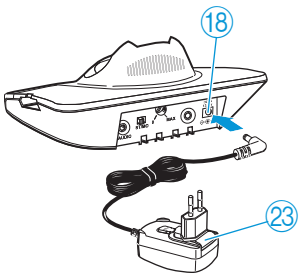
- Press the microphone onto the Velcro tape.
- Connect the jack plug of the microphone to the blue socket <BedienelementRoundNW>E of the transmitter.

Note:

You can change the sound by varying the position of the microphone in front of the loudspeaker.

Connecting the transmitter to the mains





- Select the suitable country adapter ㉔ for your wall socket.
- Slide the supplied country adapter onto the mains unit ㉓.
- Connect the yellow connector of the mains unit to the yellow socket ⑱ of the transmitter.
- Plug the mains unit ㉓ into a wall socket.
  The operation indicator ⑫ ⏻ on the transmitter lights up green.

Notes:

– When connecting the transmitter to the mains for the first time, charge the rechargeable battery for 3 hours as described in the chapter “Storing and charging the receiver” on page 19.
– If there is no audio signal from the sound source for about 3 minutes, the transmitter automatically switches off. The operation indicator ⏻ goes off.

Connecting headphones or the induction loop for hearing aids to the receiver

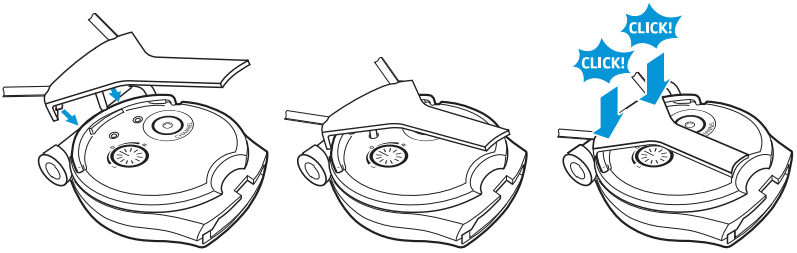
The socket ⑦ of the receiver allows you to connect

- an induction loop,
- headphones or
- a connection cable to your hearing aid.

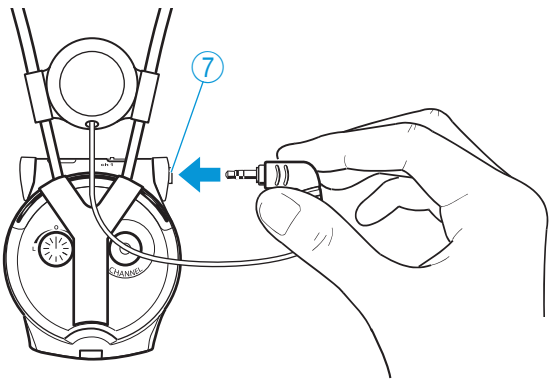
Connecting the induction loop

▶ Carefully remove the clip ㉕ from the receiver.

▶ Attach the clip of the induction loop as shown.



▶ Connect the induction loop to the socket ⑦ of the receiver.



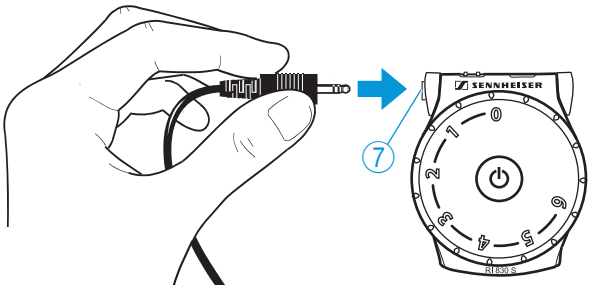
▶ Set your hearing aid to position "T".

If your hearing aid has no position "T", please contact your hearing aid acoustician.

Note:

For alternative connection possibilities to your hearing aid as well as the connection to cochlea implants, please contact your hearing aid acoustician.

Connecting headphones



▶ Connect the 3.5 mm jack plug of the headphones to the socket ⑦ of the receiver.

Wearing the receiver

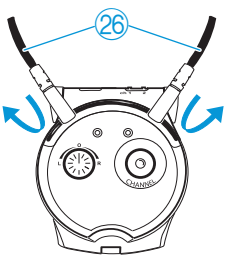
In order to wear the receiver, you can use the supplied lanyard ㉖, the clip ㉕ or the induction loop. The induction loop is suitable for users of hearing aids, the lanyard and the clip are useful if you are using headphones.

Wearing the receiver around the neck

If you want to wear the receiver around your neck, use

- the supplied lanyard ㉖ or
- the connected induction loop (where applies).

To attach the lanyard ㉖:



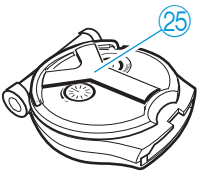
▶ Connect the fasteners of the lanyard ㉖ to the metal ring at the rear of the receiver.

▶ Wear the receiver around your neck, with the Sennheiser logo facing away from your body.

Attaching the receiver to clothing or belt

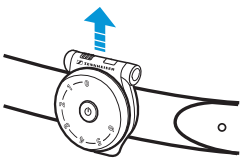
If you want to attach the receiver to your clothing or belt, use the attachment clip ㉕.

To attach the receiver:



▶ Attach the clip ㉕ to your clothing or belt.

To remove the receiver:



▶ Pull the clip ㉕ with the receiver away from your clothing or belt.

Using the Set 830 S-MKE system

To switch the Set 830 S-MKE system on, proceed as follows:

Sequence of steps	Page
1. Switch your sound source (e.g. TV) on. The transmitter automatically switches on.	14
2. Adjust the volume on the receiver to a low level.	15, 16
3. Switch the receiver on.	15
4. Adjust the desired volume on the receiver.	16

Switching the transmitter on/off

To switch the transmitter on:

▶ Switch your sound source on.
The transmitter automatically switches on. The operation indicator ⑫ ⏻ lights up green.

If the transmitter doesn't switch on:

▶ Read the chapter "If a problem occurs ..." on page 24.

To switch the transmitter off:

▶ Switch your sound source off.
The transmitter automatically switches off after 3 minutes. The operation indicator ⑫ ⏻ goes off.

To disconnect the transmitter from the mains:

▶ Pull out the mains connector from the wall socket.

Note:

When not using the transmitter for extended periods of time (e.g. when you are on holiday), pull out the mains connector from the wall socket. In this case, however, the receiver's rechargeable battery will not be recharged.

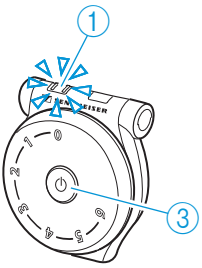
Switching the receiver on/off

CAUTION!

Hearing damage due to high volumes!

This receiver allows you to set higher volumes than conventional headphones. This can cause hearing damage in persons with healthy hearing and especially in children.

- ▶ Before using the receiver, set the volume on the receiver to a low level.
- ▶ Do not continuously expose yourself to high volumes.



To switch the receiver **on**:

- ▶ Press the on/off button ③ until the channel indicator ① lights up.
  The channel indicator ① goes off after 30 seconds.

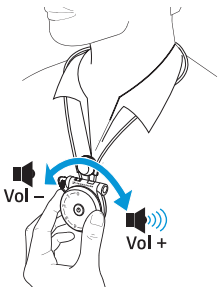
To switch the receiver **off**:

- ▶ Press the on/off button ③ until the channel indicator ① goes off.

Notes:

- For how to store and charge the receiver, see page 19.
- If you are not within the range of the transmitter, the receiver automatically switches off after 3 minutes.

Adjusting the volume

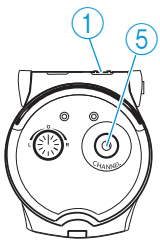


▶ Use the volume control ② to adjust the volume to a sufficient and comfortable level.

Searching for a sound source

▶ Switch the receiver on.
Do you hear the desired sound source?

Yes: The receiver has already found the sound source.



No:

▶ Briefly press the channel search button ⑤.
The sound source is searched for.

On the receiver, the channel indicator ① can light up as follows:

Channel indicator	Frequency	You hear the sound in
	2.3 + 2.8 MHz	stereo
	2.,3 MHz	mono
	2.8 MHz	

▶ If you have not yet found your sound source, press the channel search button once more.

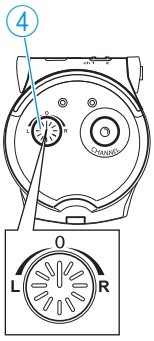
If you still cannot find your sound source:

▶ Read the chapter "If a problem occurs ..." on page 24.

Note:

The channel indicator ① goes off after 30 seconds so that the light won't disturb you in a dark room.

Adjusting the balance

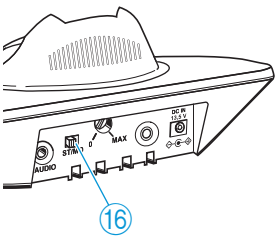


The balance control allows for right/left volume adjustment. Adjust the balance so that you hear equally well with both ears.

- Turn the balance control ④ to the left L or right R in order to increase the volume for the corresponding ear.

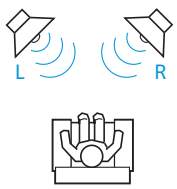
Switching between mono and stereo operation

If, despite a correct balance adjustment, you can hear the sound only with one ear:

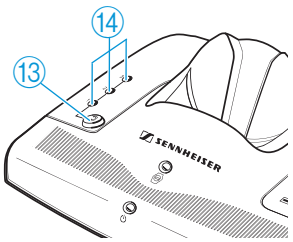


- Set the ST/MO switch ⑯ of the transmitter to MO (mono).

Meaning of the terms “mono” and “stereo”

Stereo (ST)	Mono (MO)
	
Example: L: Speech from the left R: Music from the right	
You hear speech from the left and music from the right.	You hear speech and music coming from the front.

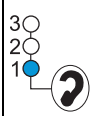
Individually enhancing the speech intelligibility



The "speech intelligibility" button 13 allows you to adjust the sound to your individual needs.

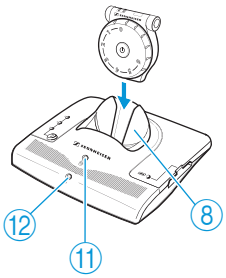
Try out which setting works best for you.

▶ Press the "speech intelligibility" button 13 until the sound is optimally adjusted to your needs.

Press the button	1 x	2 x	3 x	4 x
Indicator 14 is lit yellow				
Setting	1	2	3	Default setting

If necessary, you can have the speech intelligibility fine adjusted to your hearing ability (see page 27).

Storing and charging the receiver



▶ After use, place the receiver into the transmitter's charging compartment ⑧ without exerting too much pressure.
The receiver automatically switches off.

When the receiver is placed correctly into the charging compartment, the indicator ⑪ lights up:

red: The battery is being charged.

green: The battery is fully charged.

Notes:

– With a fully charged battery, the operating time is up to 12 hours.

– If you have several receivers, they can be used during charging.

– Always store the receiver in the transmitter's charging compartment ⑧ to ensure that it is fully charged. The intelligent battery charging technology prevents over-charging.

Charging a rechargeable battery in the transmitter's charging compartment

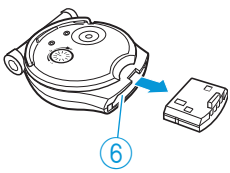
You can charge the receiver's rechargeable battery or a spare BA 300 rechargeable battery (not included in the delivery of the Set 830 S-MKE) in the charging compartment ⑨ at the side of the transmitter.

The spare battery offers extended listening time while the discharged first battery is being recharged.

Note:

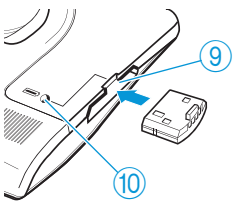
Before using the spare rechargeable battery for the first time, charge it for at least 3 hours.

Removing and charging the receiver's battery



To remove the receiver's battery:

▶ Pull the battery out of the receiver's battery compartment ⑥.

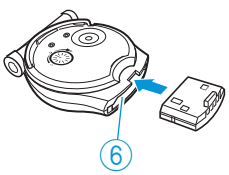


▶ Insert the receiver's battery into the charging compartment ⑨ at the side of the transmitter as shown.

When the battery is inserted correctly, the indicator ⑩ lights up:

red: The battery is being charged.

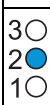
green: The battery is fully charged.



▶ Slide the battery into the receiver's battery compartment ⑥ as far as it will go.

What if...

...this indicator lights up?

Indicator		Status	Meaning
	Channel indicator ① on the receiver	lit yellow	Receiver has just been switched on or a button has just been pressed.
		off	Receiver is switched on for more than 30 secs. and no button has been pressed.
			Receiver is switched off.
	Operation indicator ⑫ on the transmitter	lit green	Transmitter is switched on.
		off	Transmitter is switched off.
	Charging indicator ⑪ Charging indicator ⑩	lit red	Rechargeable battery is being charged.
		lit green	Rechargeable battery is fully charged.
	"Speech intelligibility" indicator ⑭ on the transmitter	lit yellow	Speech intelligibility enhancement is switched on.
		off	Speech intelligibility enhancement is switched off.

...you press this button?

Button	Function	Page
Channel search button ⑤ on the receiver	Searches for the sound source or a different channel.	16
"Speech intelligibility" button ⑬ on the transmitter	Selects one of the possible settings in order to individually enhance the speech intelligibility.	18

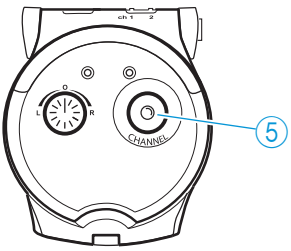
...you change the position of this control/switch?

Control/switch	Function	Page
Volume control ② on the receiver	Reduces or increases the volume of the receiver.	16
Balance control ④ on the receiver	Increases the volume for the left or the right ear.	17
Mono/stereo slide switch ⑯ on the transmitter	Sets the transmitter to mono or stereo operation.	17
Treble adjustment control ⑰ on the transmitter	Treble adjustment is only to be made by a hearing aid technician / an expert.	28

...you hear acoustic signals or warning signals?

Acoustic signal		Meaning
	3 ascending beeps	The receiver has just been switched on.
	2 descending beeps	The receiver has just been switched off.
	1 acknowledgement beep	The channel search button has been pressed once briefly.
		The channel search button has been pressed for 5 seconds.
	1–2 short beeps	The receiver is set to channel 1 or 2.

Warning signal		Meaning
	6 short beeps	The receiver does not receive any signal from the transmitter: • The distance between transmitter and receiver is too great. The receiver switches off after 3 minutes. • The transmitter is switched off.
	2 long beeps	The rechargeable battery is almost flat.



To switch the acoustic signals on and off:

▶ Press the channel search button (5) of the receiver for approx. 5 seconds.
You hear a short acoustic signal.

Note:

Warning signals cannot be switched off.

Cleaning the Set 830 S-MKE

Cleaning the transmitter and the receiver

CAUTION!

Liquids can damage the electronics of the devices!

Liquids entering the housing of the devices can cause a short-circuit and damage the electronics.

- Keep all liquids far away from the devices.
- Do not use any cleansing agents or solvents.

- Before cleaning, disconnect the transmitter from the mains.
- Use only a slightly damp cloth to clean the devices.

If a problem occurs ...

The transmitter does not switch on

Possible cause	Solution
Is the mains unit connected correctly?	Check the connection of the mains unit to the transmitter and to the mains (see page 10).
Is the sound source switched on?	Switch your sound source on.
Is the volume of the sound source sufficient?	Set the volume on your sound source to a medium level.
Is the transmitter set to operating mode 2 (see page 29)?	Take the receiver out of the charging compartment. The transmitter automatically switches on.

You cannot hear anything

Possible cause	Solution
Is there a free line of sight between receiver and transmitter?	Remove obstacles in the light path between receiver and transmitter.
Are transmitter and receiver exposed to direct sunlight?	Avoid exposure to direct sunlight.
Is the receiver still within the transmitter's range?	Move the receiver closer to the transmitter. If necessary, switch the receiver on again.
Are all connectors connected correctly?	Check the connection between the transmitter and your sound source (see page 7).
Is the operation indicator ⑫ lit?	Check if the transmitter is switched on (see page 14).
Is the transmitter set up the wrong way round?	Set up the transmitter so that the cables are guided away from the receiver (see page 6).
Does the receiver's Sennheiser logo face the transmitter?	Wear the receiver the right way round, with the Sennheiser logo facing the transmitter.
Is the volume of the sound source sufficient?	Set the volume on your sound source to a medium level.
Is the volume of the receiver sufficient?	Increase the volume by turning the volume control ② of the receiver (see page 16).
Is the rechargeable battery inserted properly into the receiver and fully charged?	Check if the channel indicator ① is lit. If it is not lit: recharge the rechargeable battery (see page 19).
	Remove the rechargeable battery and reinsert it into the receiver. If this doesn't help: recharge the rechargeable battery (see page 19).

You hear the sound only with one ear

Possible cause	Solution
Is the balance adjusted correctly?	Turn the balance control ④ to the left or right (see page 17).
Is the transmitter set to mono?	Set the mono/stereo switch ⑯ on the transmitter to the left (see page 17).

The sound of your sound source is hardly intelligible

Possible cause	Solution
Is the speech intelligibility enhancement out of adjustment?	Press the "speech intelligibility" button ⑬ on the transmitter until the sound is optimally adjusted to your needs (see page 18).
Do you use a plasma TV screen?	Make sure that the transmitter is placed as far as possible from your plasma TV screen (see page 6).
Is the receiver still within the transmitter's range?	Move the receiver closer to the transmitter. If necessary, switch the receiver on again.

The loudspeakers of your TV are muted

Possible cause	Solution
Some TVs have a function that mutes the loudspeakers when you connect a transmitter.	Via the operating menu of your TV, check if and how the muting can be deactivated.
	Use a different audio socket on your TV or use the MKE 800 TV-N external microphone.

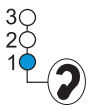
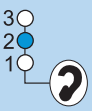
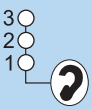
If a problem occurs that is not listed in the above tables or if the problem cannot be solved with the proposed solutions, please contact your Sennheiser partner for assistance.

Additional technical information

Fine adjusting the speech intelligibility

The speech intelligibility can be enhanced individually on the transmitter (see page 18).

There are the following settings:

Setting	Indicator ⑭ lit yellow	Fine adjustment
1		Compression
2		Treble boost
3		Compression and treble boost
Default setting		No fine adjustment made

Compression (settings 1 and 3)

Deterioration of the ability to hear quiet sounds as well as loud ones is a typical symptom of old age. Compression compensates for these

volume differences by boosting the volume of quiet sounds and reducing the volume of loud sounds if necessary.

Compression seems to put the speech in the foreground, making it easier to understand.

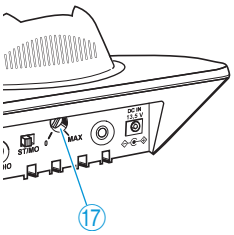
Compression is self-regulating; once it has been activated, it is not necessary to make any other settings.

Treble boost (settings 2 and 3)

Another typical age-related phenomenon is the deterioration of the hearing with regard to high frequencies. However, high frequencies are important for the intelligibility of speech.

The treble boost makes the speech clearer and easier to understand.

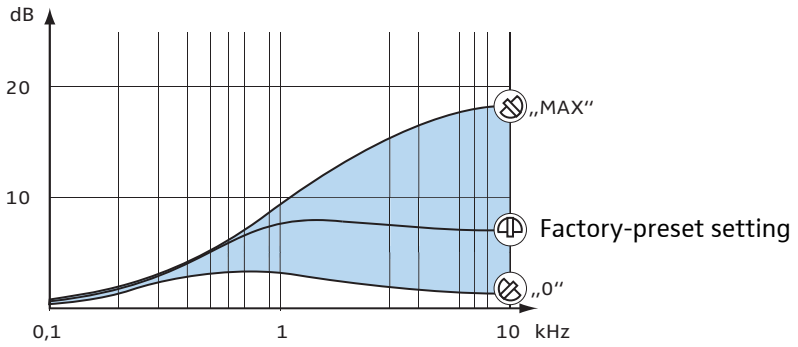
With the treble boost (settings 2 and 3), additional fine adjustment is possible using the treble boost control ⑰ at the rear of the transmitter.



▶ Use a screwdriver to turn the treble boost control ⑰ to the left or right until the sound can be heard very well.
The position "0" corresponds to a minimum boost, the position "MAX" corresponds to a maximum boost, and the control is factory-preset to the medium position.

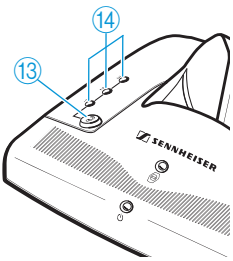
Function of the treble boost control

By means of the transmitter's steplessly adjustable treble boost control ⑰, the audio signal is boosted as shown in the diagram. The treble boost control ⑰ allows you to select one of the curves shown in the diagram below.



Changing the operating mode

The transmitter can be set to a different operating mode. This is useful when the sound of your sound source is very low and the transmitter therefore does not always switch on automatically.

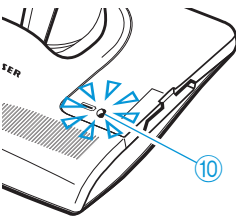


▶ Press the "speech intelligibility" button ⑬ for approx. 5 seconds.

The indicator ⑭ goes off. The charging indicator for the spare rechargeable battery ⑩ flashes several times:

red: operating mode 2

green: operating mode 1 (factory-preset)



If the operating mode was changed successfully, the charging indicator for the spare rechargeable battery ⑩ goes off and the indicator ⑭ lights up again.

Particularities of operating mode 2:

In operating mode 2, the transmitter is not switched on by the sound signal from the sound source.

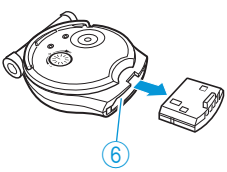
To switch the transmitter on:

▶ Take the receiver out of the charging compartment.

To switch the transmitter off:

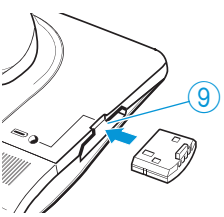
▶ Place the receiver into the charging compartment.

If – in operating mode 2 – you want to use a second receiver and charge its rechargeable battery during operation:



▶ Pull the battery out of the receiver's battery compartment ⑥.

▶ Slide the battery into the transmitter's charging compartment ⑨ as far as it will go.



Accessories and spare parts

CAUTION! **Danger of damage to the device!**

Components from other manufacturers (e.g. for power supply or rechargeable battery) may cause damage to the device and will invalidate the warranty!

- Use only original Sennheiser accessories and spare parts.

For the Set 830 S-MKE, the following receivers and stethoset receivers are available from your specialist dealer:

Cat. No.	Accessory/spare part
502021	RI 830 S receiver
502020	RI 830 stethoset receiver
502023	RI 900 stethoset receiver

The following Set 830 S-MKE accessories are available from your specialist dealer:

Cat. No.	Accessory/spare part
500898	BA 300 spare rechargeable battery
502566	EZT 3011 induction loop
504061	EZT 3012 induction loop
003448	EZI 120 induction couplers
528185	Lanyard
528184	Clip for attaching the receiver
517627	Extension cable, 3 m (3.5 stereo jack plug)
500974	MKE 800 TV-N external microphone (mono)
502710	L 300 10-10 charger
	HZL connection cables
001676	HZL 30-6 (3.5 mm jack plug to 1 mini-plug, 40 cm)
004658	HZL 30-600 (3.5 mm jack plug to 1 mini-plug, 60 cm)
001678	HZL 32-6 (3.5 mm jack plug to 2 mini-plugs, 40 cm)
004657	HZL 32-600 (3.5 mm jack plug to 2 mini-plugs, 60 cm)
002408	HZL 34-6E (3.5 mm jack plug to 1 Euro plug, 40 cm)
004652	HZL 34-600E (3.5 mm jack plug to 1 Euro plug, 60 cm)
002409	HZL 36-6E (3.5 mm jack plug to 2 Euro plugs, 40 cm)
004653	HZL 36-600E (3.5 mm jack plug to 2 Euro plugs, 60 cm)

Specifications

System

Modulation	FM, stereo
Carrier frequencies	2.3 MHz/2.8 MHz
Frequency response	50 Hz–16,000 Hz
THD	< 1 %
Charging time for rechargeable battery	approx. 3 hrs
Signal-to-noise ratio (1 mV, peak deviation)	typ. 75 dBA
Operating temperature	10 °C to 40 °C

Transmitter

Range	up to 12 m within a room
Audio/microphone connection	3.5 mm stereo jack socket
Power supply	13.5 V DC/500 mA via NT 13 mains unit
Weight	approx. 260 g
Dimensions	approx. 112 x 146 x 58 mm

Receiver

Audio connection	3.5 mm stereo jack socket
Max. SPL	125 dB (SPL)
Power supply	via BA 300 rechargeable Li-Pol battery (3.7 V / 150 mAh)
Operating time	up to 12 hours
Weight	approx. 50 g (Incl. BA 300)
Dimensions	approx. 70 x 60 x 25 mm

NT 13 mains unit

Nominal input voltage	100 V~ to 240 V~
Mains frequency	50–60 Hz
Max. power consumption	2.4 W (incl. battery charging)
Nominal output voltage	13.5 V DC
Nominal output current	500 mA
Standby consumption	approx. 0.9 W (w/o battery charging)
Ambient temperature	+5°C to +40°C

The NT 13 mains unit is certified in accordance with the legal safety requirements of Europe, the United States, Canada, Russia and Japan.

The devices comply with the following standards:

Europe	CE	EMC: EN 55013, EN 55020 Safety: EN 60065, EN 61558, EN 60950
USA	FC	47CFR15_B
Canada	IC	ICES-003

Manufacturer Declarations

Warranty

Sennheiser GmbH & Co. KG gives a warranty of 24 months on this product.

For the current warranty conditions, please visit our web site at www.sennheiser.com or contact your Sennheiser partner.

Declaration of Conformity

CE

This equipment is in compliance with the essential requirements and other relevant provisions of Directives 2004/108/EU and 2006/95/EU.

The declaration is available at www.sennheiser.com.

Batteries and rechargeable batteries

Please dispose of exhausted batteries and rechargeable batteries as special waste or return them to your specialist dealer.

WEEE Declaration

Please dispose of this product at the end of its operational lifetime by taking it to your local collection point or recycling centre for such equipment.

Statements regarding FCC and Industry Canada

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This class B digital device complies with the Canadian ICES-003.

Changes or modifications made to this equipment not expressly approved by Sennheiser electronic Corp. may void the FCC authorization to operate this equipment.

Before putting the device into operation, please observe the respective country-specific regulations!

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